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This MANU-SPEC™ utilizes the Construction Specifications Institute (CSI) *Manual of Practice*, including *MasterFormat*™, *SectionFormat*™ and *PageFormat*™. A MANU-SPEC is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets [ ]; delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies fire retardant treatment for wood components and wood construction not exposed to the weather, marketed under the D-Blaze® trade name, as manufactured by Chemical Specialties, Inc. Applications include: roof and floor trusses, roof decks and sheathing; subflooring, beams and purlins, blocking and furring, studs, joists and paneling, architectural millwork and trim, interior non-load bearing partitions, exterior load-bearing walls. Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat* for other section numbers and titles, including 06100 Rough Carpentry, 06200 Finish Carpentry and 06400 Architectural Woodwork.

**SECTION 06073**  
**FIRE RETARDANT TREATMENT**  
**(FIRE RETARDANT PRESSURE TREATED WOOD)**

**PART 1 GENERAL**

Specifier Note: D-Blaze Fire Retardant Treated (FRT) lumber and plywood is highly effective against the spread of flame and smoke. Its built-in UL FRS classified properties have a flamespread and smoke rating of 25 or less. D-Blaze FRT materials are independently tested. They qualify with all major building codes and insurance rating bureaus. They are noncorrosive, easy to handle and workable with common tools. In most cases, they feature a lower in-place cost than noncombustible classified materials. Lumber and plywood treated with D-Blaze fire retardant can be used in a variety of interior applications where the humidity is not expected to exceed 95% for prolonged periods and where the wood is not directly exposed to weather. D-Blaze fire retardant treated wood is available for interior applications where fire retardant construction materials are specified.

**1.01 SUMMARY**

- A. Section Includes: Fire retardant treatment for wood, including roof and floor trusses, roof decks and sheathing; subflooring, beams and purlins, blocking and furring, studs, joists and paneling, architectural millwork and trim, interior non-load bearing partitions and exterior load-bearing walls.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier's practice.

- B. Related Sections: Section(s) related to this section include:
  1. Rough Carpentry: Division 6 Rough Carpentry Section.
  2. Finish Carpentry: Division 6 Finish Carpentry Section.
  3. Architectural Woodwork: Division 6 Architectural Woodwork Section.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating

edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section.

## 1.02 REFERENCES

- A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.
- B. ASTM International:
  - 1. ASTM D3201 Standard Test Method for Hygroscopic Properties of Fire-Retardant Wood and Wood-Base Products.
  - 2. ASTM D5516 Standard Test Method for Evaluating the Flexural Properties of Fire-Retardant Treated Softwood Plywood Exposed to Elevated Temperatures.
  - 3. ASTM D5664 Standard Test Method for Evaluating the Effects of Fire-Retardant Treatments and Elevated Temperatures on Strength Properties of Fire-Retardant Treated Lumber.
  - 4. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. American Wood-Preservers Association (AWPA):
  - 1. AWPA C20 Structural Lumber-Fire-Retardant Treatment by Pressure Processes.
  - 2. AWPA C27 (Type A) Plywood-Fire-Retardant Treatment by Pressure Processes.
  - 3. AWPA P17 Fire Retardant Formulations.
  - 4. (UCFA) U1 Use Category System Specifically for Treated Wood Products.
- D. National Fire Protection Association (NFPA):
  - 1. NFPA 255 Method of Test of Surface Burning Characteristics of Building Materials.
- E. Underwriters Laboratories, Inc. (UL):
  - 1. UL 723 Tests for Surface Burning Characteristics of Building Materials.
- F. Department of Defense (DOD), Military Specification (Mil):
  - 1. MIL-L-19140E Lumber and Plywood, Fire-Retardant Treated.

## 1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide fire retardant treatment which will [Performance criteria] perform in accordance with manufacturer's stated performance criteria without defects, damage or failure.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

## 1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's SPEC-DATA™ product sheet, for specified products.
- C. Quality Assurance Submittals: Submit the following:
  - 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
    - a. Evaluation Report: [Specify evaluation report submittal to suit project requirements].
  - 2. Certificates: Certification from treating plant certifying wood treatment applied complies with the criteria and physical requirements for D-Blaze Fire Retardant Treatment by CSI.
- D. Closeout Submittals: Submit the following:
  - 1. Warranty: Warranty documents specified herein.

Specifier Note: Article below should include prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate below article with Division 1 Quality Assurance Section.

#### 1.05 QUALITY ASSURANCE

- A. Wood Treatment Plant Qualifications: Wood treatment plant experienced in performing work of this section that has specialized in treatment of wood similar to that required for this project and licensed by CSI.

Specifier Note: Retain paragraph below to suit project requirements; otherwise, delete paragraph below.

1. Certificate: When requested, submit certificate indicating qualification.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Division 1 Regulatory Requirements Section. Repetitive statements should be avoided.

- B. Regulatory Requirements: Provide fire retardant treatment which complies with the following regulatory requirements:
1. Building Officials and Code Administrators International, Inc. (BOCA), BOCA ES No. 95.42.
  2. City of Los Angeles, California, RR 24502.
  3. City of New York, New York Building Code, MEA 406; New York Building Code MEA 407.
  4. International Conference of Building Officials (ICBO), ICBO ES 5180.
  5. Southern Building Code Congress International, Inc. (SBCCI), SBCCI ES No. 9657.
  6. National Evaluation Service (NES), NER 562.
- C. Bureau of Ships - Qualified Products Listing.

Specifier Note: Article below should include special and unique requirements. Coordinate article below with Division 1 Product Requirements Section.

#### 1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Exposure to precipitation during shipping, storage or installation shall be avoided. If material does become wet, it shall be replaced or permitted to dry (maximum 19% MC for lumber and 15% MC for plywood) prior to covering or enclosure by wallboard or other construction materials (except for protection during construction).

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section.

#### 1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements. CSI offers the following: D-Blaze features a 50 year limited warranty. Refer to D-Blaze 50 year limited warranty brochure or consult manufacturer for complete details.

1. Warranty Period: 50 years commencing on Date of Substantial Completion.

### PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

#### 2.01 FIRE RETARDANT PRESSURE TREATED WOOD

Specifier Note: D-Blaze Fire Retardant Treated (FRT) lumber and plywood is highly effective against the spread of flame and smoke in weather protected applications. It can be used where building codes permit the use of wood, or fire retardant treated wood. Recommended and typical uses include roof trusses, roof decks and sheathing, beams and purlins, floor trusses, subflooring, joists, interior non-load bearing partitions, exterior load-bearing walls, studs, architectural millwork and trim, blocking and furring, and paneling.

A. Manufacturer: Chemical Specialties, Inc. (CSI).

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier's practice.

1. Contact: One Woodlawn Green, Suite 250, 200 East Woodlawn Road, Charlotte, NC 28217; Telephone: (800) 421-8661, (704) 522-0825; Fax: (704) 527-8232; E-mail: [productinfo@chemspec.com](mailto:productinfo@chemspec.com); Web site: [www.treatedwood.com](http://www.treatedwood.com).

Specifier Note: D-Blaze is pressure treated deep into the wood; it is not a coating. D-Blaze is noncorrosive. Wood species, which qualify under UL FRS classification, include a variety of softwood lumber, plywood and hardwood lumber. Softwood lumber types include: Alpine fir, Balsam fir, Black spruce, Douglas fir, Englishman spruce, Hem-fir, Jack pine, Lodgepole pine, Ponderosa pine, Red pine, Red spruce, Southern yellow pine, Spruce-pine-fir, Western hemlock, White fir and White spruce. Plywood types include: Douglas fir, Lauan, Red pine and Southern yellow pine. Hardwood lumber types include: Basswood and Red oak. The product is intended for weather protected applications only. It is not to be used in areas subject to precipitation, wetting, dampness or condensation. All wood products must be kiln dried to a maximum moisture content of 19% for lumber and 15% for plywood. Lower moisture contents may be preferred for cabinetry and millwork. Wood treated with D-Blaze fire retardant is paintable, stainable and easy to work with common tools. The product is colorless and nonblooming. It will not darken or discolor most woods.

B. Proprietary Product(s)/System(s): D-Blaze Fire Retardant Pressure Treated Wood.

Specifier Note: D-Blaze FRT wood products protect against corrosion on galvanized steel truss plates as well as other metal fasteners. Testing has shown that with respect to metal corrosion these FRT products maintain metal finish and metal integrity virtually as well as untreated wood exposed to the same conditions. D-Blaze FRT wood has been tested by an independent laboratory in accordance with industry standards to develop strength reduction factors for various use conditions, including roof temperatures up to 150 - 170 degrees F (66 - 77 degrees C). D-Blaze FRT wood shows very low hygroscopicity under relative humidity conditions as high as 95%. It has virtually the same moisture content as untreated wood. Test reports are available to design professionals upon request.

1. Fire Retardant Treatment: Manufacturer's proprietary solution for fire retardant treatment of wood.
2. Treatment Testing: Provide D-Blaze FRT wood treatment which has been tested by Underwriters Laboratories, Inc., (UL) of Northbrook, IL, and has been designated UL classification FRS which signifies a flamespread and smoke developed rating of 25 or less. When tested for 30 minutes, there shall be no evidence of significant progressive combustion. Each piece of treated material shall bear a UL classification stamp and meet or exceed requirements for Class 1 or Class A flamespread ratings.

Specifier Note: Edit article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.

## 2.02 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted.

## 2.03 RELATED MATERIALS

A. General: Refer to Division 6 Wood & Plastics Sections for related wood materials specified herein.

B. Moisture Content: Provide fire retardant treated wood with moisture content as follows:

1. Lumber: Kiln dried to a maximum moisture content of 19% after treatment.
2. Plywood: Kiln dried to a maximum moisture content of 15% after treatment.

## 2.04 SOURCE QUALITY

A. Source Quality: Obtain fire retardant treatment materials from a single manufacturer.

Specifier Note: Coordinate paragraph below with Division 1 Quality Control (Source Quality Control) Section.

B. Tests, Inspections: [Specify tests, inspections and other source quality requirements.]

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**PART 3 EXECUTION**

Specifier Note: Article below is an addition to the CSI *SectionFormat* and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier's practice.

**3.01 MANUFACTURER'S INSTRUCTIONS**

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

**3.02 APPLICATION**

Specifier Note: For painting, staining or gluing, light sanding or brushing is all that is necessary to ensure proper coating adhesion. Complete installation recommendations are available from the manufacturer. Avoid frequent or prolonged inhalation of sawdust from treated wood. When sawing and machining treated wood, wear a dust mask. When power sawing or machining, wear goggles to protect eyes from flying particles. Surfaces must be clean and dry before application. For best results, application should follow manufacturer's recommendations.

Specifier Note: Coordinate paragraph below with manufacturer's installation instructions to avoid conflicts.

- A. Installation Reference Standard(s): Install fire retardant treatment in accordance with requirements of [List applicable reference standard.].

**END OF SECTION**